Appl. No. 10/032,075
Reply to Office Action of November 10, 2004

Docket No. EMC-048PUS

REMARKS/ARGUMENTS:

Applicant respectfully request reconsideration of the present application in view of the remarks below. Applicant believes consideration and entry of this amendment is proper under Rule 1.116 since the application is believed to be in condition for allowance.

Pending claims 1-13 are rejected.

The Prior Art Rejections

The Examiner rejects claims 1-13 under 35 U.S.C. §103 over U.S. Patent No. 5,720,026 to Uemura et al in view of Levy et al, *Incremental Recovery in Main Memory Database Systems.*

Applicant submits that the invention as claimed is quite different from Uemura and Levy.

Claim 1 requires a method for incrementally backing up data from a logically represented volume on disk media by *identifying tracks* of the logically represented volume that have changed since a last incremental backup operation by reading fresh data indications, *identifying files* for incremental backup, the identified files comprising *blocks saved on a track deemed changed since a last incremental backup operation*, and backing up the identified *files.*

With this arrangement, *tracks* that have changed since the last incremental backup are identified, and *files* are identified comprising blocks saved on a changed track. The backed up files can contain *changed* and **unchanged** blocks. This is described more fully in paragraph [0036] of the present specification, which states:

> "In act 72, the method identifies files for incremental backup. The identified files comprise blocks saved on a track deemed changed since a last incremental backup operation, and may also include blocks which have not changed since the previous incremental backup. In act 74, the method backs up the identified files in their entirety from the disk media to sequential storage media through a high speed connection. It is possible for a file to contain blocks which have not changed, but which reside on a track which has changed. This means that, in the illustrated embodiment, "false positives" can be encountered, and the process may

backup files which have actually not changed since the previous backup. Since this type of error is always a "false positive" (i.e., including extra files for backup), rather than false negative (excluding files which should be backed up, it does not present a problem."

In contrast, Uemura merely identifies changed blocks using difference map information. Changed blocks are then backed up.

Applicant submits that Uemura, taken alone or in combination with Levy, does not contemplate *identifying changed tracks*, identifying *files* comprising *blocks* saved on a *changed track*, and/or backing up the *identified files*, as claimed. Applicant further submits that the Examiner has not identified any teaching in Uemura of these claimed features.

Applicant submits that Levy does not overcome any of the deficiencies of Uemura described above. Levy, in the portions pointed to by the Examiner, is directed to fast restart after a crash to resume transaction processing as soon as possible while "preserving the *consistency of the database*." (emphasis added). This is in contrast to the method of claim 1 which is directed to *incremental backup* and *identifying files for incremental backup deemed changed since the last incremental backup*.

In view of the above, Applicant submits that claim 1 is patentably distinguishable over Uemura and/or Levy, taken alone or in combination with each other. For substantially the same reasons, Applicant submits that claims 2-13 are also distinguishable.

Accordingly, Applicant respectfully requests a notice of allowance for claims 1-13.

The Examiner is respectfully invited to telephone the undersigning attorney if there are any questions regarding this Amendment or this application.

Applicant does not acquiesce to any assertion made by the Examiner not specifically addressed herein.

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The Assistant Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 500845.

Respectfully submitted,

Dated: _9 Mar 05_

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